

Mr. Eric Larson
Clark Retail Enterprises, Inc.
601 South Main Street
Ann Arbor, Michigan 48104

Dear Mr. Larson:

Re: Exempt Construction and Operation Status,
003-14632-00321

The application from Clark Retail Enterprises, Inc. received on July 6, 2001, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following equipment, to be located at 2304 Sherman Boulevard, Fort Wayne, Indiana, is classified as exempt from air pollution permit requirements:

- (a) Soil vapor extraction (SVE) system, which includes one (1) vapor extraction well. The soil vapor extraction system is capable of extracting air at a total rate of 160 cubic feet per minute (cfm).

The following conditions shall be applicable:

1. Volatile Organic Compounds (VOCs) [326 IAC 8-1-6]

The VOC potential emissions from the soil vapor extraction (SVE) are less than 25 tons per year. Therefore, the Best Available Control Technology (BACT) requirement in 326 IAC 8-1-6 (New Facilities: General Reduction Requirements) does not apply. Any change or modification which may increase soil vapor extraction (SVE) VOC potential emissions to 25 tons per year or more shall obtain OAQ approval before such change may occur.

2. Hazardous Air Pollutants (HAPs) [326 IAC 2-4.1-1]

The single HAP and combined HAPs potential emissions from the soil vapor extraction (SVE) are less than 10 tons per year and 25 tons per year respectively. Therefore, 326 IAC 2-4.1-1 (New Source Toxics Control) does not apply. Any change or modification which may increase each single HAP or combined HAPs emissions to 10 tons per year or more or 25 tons per year or more from the soil vapor extraction (SVE) shall obtain OAQ approval before such change may occur.

This registration is the first air approval issued to this source.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

APD

cc: File - Allen County
Allen County Health Department
Air Compliance -Jennifer Dorn
Permit Tracking - Janet Mobley
Technical Support and Modeling - Michele Boner
Compliance Data Section - Karen Nowak

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for an Exemption

Source Background and Description

Source Name: Clark Retail Enterprises, Inc.
Source Location: 2304 Sherman Boulevard, Fort Wayne, Indiana
County: Allen
SIC Code: 5541
Exemption No.: 003-14632-00321
Permit Reviewer: Aida De Guzman

The Office of Air Quality (OAQ) has reviewed an application from Clark Retail Enterprises, Inc. relating to the construction and operation of the following:

- (a) Soil vapor extraction (SVE) system, which includes one (1) vapor extraction well. The soil vapor extraction system is capable of extracting air at a total rate of 160 cubic feet per minute (cfm).

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on July 6, 2001.

Emission Calculations

- (a) **Soil Vapor Extraction System:**
Soil vapor extraction system removes volatile organic compounds (VOCs) and some semi-volatile organic compounds (SVOCs) from soil beneath the ground surface in the unsaturated zone (part of the subsurface located above the water table). By applying a vacuum through a system of underground wells, contaminants are pulled to the surface as vapor or gas.

The following emissions were calculated based on air samples:

Table 1

Hazardous Air Pollutant	Concentration (mg/liter)	Flow Rate (cfm)	Annual VOC Emission Rate (tons/year)
Benzene	0.00043	160	0.0011
Toluene	0.0011	160	0.0029
Xylene	0.00239	160	0.0063
MTBE	0.0034	160	0.0089
TOTAL Emissions			0.0192

Methodology:

VOC/HAP Emissions = concentration,mg/liter * 28.32 liters/cu ft * 2.2 x10⁻⁶ lb/mg * flow rate, cfm
* 60 min/hr * 8760 hrs/yr * ton/2000 lb

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM	0.0
PM-10	0.0
SO ₂	0.0
VOC	0.0192
CO	0.0
NO _x	0.0

HAP's	Potential To Emit (tons/year)
Benzene	0.0011
Toluene	0.0029
Xylene	0.0063
MTBE	0.0089
TOTAL	0.0192

Justification for the Level of Approval

- (a) The proposed source is exempted to have a registration or a permit, pursuant to 326 IAC 2-1.1-3 because VOC is emitted at levels less than 10 tons/year; single HAPs is emitted at levels less than 1 ton/year and combined HAP is emitted at levels less than 2.5 tons/year.

Limited Potential to Emit

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

	Limited Potential to Emit (tons/year)							
Process/facility	PM	PM-10	SO ₂	VOC	CO	NO _x	Single HAP	Combined HAPs
Soil vapor extraction	0.0	0.0	0.0	0.0192	0.0	0.0	0.0089	0.0192
Total Emissions	0.0	0.0	0.0	0.0192	0.0	0.0	0.0089	0.0192

County Attainment Status

The source is located in Allen County.

Pollutant	Status
PM-10	Attainment
SO ₂	Attainment
NO ₂	Attainment
Ozone	Attainment
CO	Attainment
Lead	not determined

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Allen County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Allen County has been classified as attainment or unclassifiable for all the other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

New Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity):

Pollutant	Emissions (ton/yr)
PM	0.0
PM10	0.0
SO ₂	0.0
VOC	0.0192
CO	0.0

NO _x	0.0
Single HAP	0.0089
Combination HAPs	0.0192

- (a) This new source is **not** a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This new source is **not** subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

This is the first air approval issued to this source.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability

- (a) 326 IAC 2-6 (Emission Reporting)
This source is **not** subject to 326 IAC 2-6, because its potential to emit VOC is less than 100 tons per year.
- (b) 326 IAC 8 (Volatile Organic Sources)
There are no provisions under Article 8 that will apply to this soil vapor extraction source, because it does not fit any of the source categories in the rule.
- (c) 326 IAC 8-1-6 (General Reduction Requirements)
This rule applies to new facility as of January 1, 1980 which have potential VOC emission of 25 tons per year. The soil vapor extraction source is **not** subject to this rule because its VOC potential emission is less than 25 tons per year.
- (d) 326 IAC 2-4.1-1 (New Source Toxics Control)
This rule applies to sources who construct or reconstructs a major source of hazardous air pollutants after July 27, 1997. This rule is **not** applicable to this source, because it is not major for hazardous air pollutants (HAPs).

Conclusion

The construction and operation of this soil vapor extraction source shall be subject to the conditions of the attached **Exemption 003-14632-00321**.